



## OUTLAND TECHNOLOGY INC.

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### LIMITED WARRANTY

Outland has a strong commitment to high quality production. Each product has a twelve (12) month limited warranty against defects in workmanship or materials with the exception of those outlined in the limitations and exclusions. Outland will repair or replace at its discretion the defective components.

#### Limitations and Exclusions

- The limited warranty does not cover damage caused by improper use, poor maintenance or accidental damage of the product or its components.
- The limited warranty does not cover items subject to wear including but not limited to view ports, o-rings, umbilical, unless found to be defective in workmanship and/or materials.
- The limited warranty does not cover any modification made to these products without authorization from Outland Technology Inc.
- The limited warranty does not cover lamps.
- The limited warranty does not cover components damaged due to incorrect power connection per user's manual.
- The limited warranty does not cover items not actually built by Outland. Example (DVD recorder, Monitor etc.). That would be covered by the manufacturer's warranty.

Advertising claims made by us represent our honest opinion of the qualities and features offered by the products described. We disclaim any warranties expressed or implied, including warranties of merchantability and fitness for a particular purpose, except as provided herein. In no event shall Outland Technology be liable for consequential damages of any kind.

#### Shipping

All returns for warranty service must be authorized by Outland. You must call or email Outland for a RMA#. The assigned RMA (Returned Materials Authorization) number which must be clearly indicated on each item returned for service.

**NOTE:** To submit a product or its components for warranty a RMA form must be completed.  
Please complete as best and detailed as possible.

For warranty shipping within the first 30 days, Outland will pay for ground shipment on domestic orders incoming and outgoing to a maximum of \$75.00 each way. International shipments will be credited up to \$75.00 US for incoming and outgoing freight charges to Outland Technology Inc.

After 30 days the client is solely responsible for shipping to and from Outland Technology Inc.

During the first 30 days of the warranty period, should faster delivery service be requested, a \$75.00 US credit towards expedited freight for each applicable leg will be given.

If you have any questions regarding the installation and operation of this equipment, or if more information is needed contact:

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## UWS-3210/d OPERATING INSTRUCTIONS

1. To operate Camera System, all interconnections from the Control Unit, VCR & Monitor, should already be connected but in the event there is a problem drawing # 0010550 shows how those items connect.

**CAUTION:**

Insure voltage does not exceed 120 volts AC to the Console. Also power source must be properly grounded.

2. Plug Camera Umbilical into Camera and light (Be sure to use a good quality silicon grease for lubrication). Plug topside end of umbilical into Control Unit connector on front panel.
3. After verifying supply power is correct, insure camera, light, recorder and monitor switches are in off position. Plug into power source.
4. Turn Monitor, Recorder and Camera switches on. Within a few secs. a picture will appear.
5. Adjust Focus control to get a clear picture. (UWC-560 only) UWC-500 requires the Video Typewriter option. Hit the "Home" key to Zoom out and the "End" key to zoom in. Focus is automatic. To manually focus the UWC-500 hit the "+" key and then "Page up" and "Page down" to focus. To put back into automatic hit the "+" key.
6. Insure "Light Intensity" is at "Min" position. Turn light switch on. Turn control up to test light. Turn back to Min. and Turn switch off.

**CAUTION:**

" Light can be operated out of water but will shut down automatically if the temperature exceeds 50c.

7. The CON-3200/d console only outputs 24 VDC maximum.
8. The Dual system is equipped with a PIP (Picture in Picture) Device. It displays both images on the screen one full Screen and the other 1/9 screen. The unit is mounted in the rear of the console and remote switches are mounted in the front right side of the console. To turn cameras 1 & 2 on switch PIP up. To switch between cameras 1 and 2 move the swap switch up or down. To learn more about the PIP unit

refer to the enclosed manual.



9. To use the recorder please refer to the VCR or DVD manual:

When initially turned on the DVD recorder may try to scan for cable channels. Just hit the return button on the Remote and this will stop. Change the channels until it goes pass channel 1 to L1 and a picture should appear from the camera.

Note:

The DVD recorder has several levels of record quality. XP is the highest but uses the most of the hard drive and DVD disk. Read the recorder manual for more details concerning the operation of these recorders.

Any problems Please Contact: **Outland Technology Inc.**  
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# TROUBLESHOOTING GUIDE

SYMPTOM	PROBABLE CAUSE	REMEDY
1. Camera does not come on.	Power cord not plugged in.	Plug in.
	Fuse Blown	Replace (In rear)
	GFI tripped	Reset (In rear)
	Camera Umbilical not plugged in at Console or Camera.	Connect.
	Camera switch not on.	Turn on.
	Recorder not on or is in Play mode.	Turn on- Press stop.
	Recorder not in line mode.	Push channel selector down until "L" shows on the display.
	Monitor not on.	Turn on.
	Umbilical has a short or has broken wires.	Check for continuity and/or shorts using Drawing # C-2301.
	Camera DC supply Bad.	Check for 12-16 volts DC at camera umbilical connector between pins B & C. If no voltage check the GFI and the fuse at the rear of the console.
2. Light does not come on.	Power cord not plugged in	Plug in.
	Fuse blown.	Replace. (In Rear)
	GFI tripped	Reset (In Rear)
	Umbilical not plugged in at Console or Light.	Connect.
	Umbilical has a short or has broken wires.	Check for continuity and/or shorts using Drawing # C-2301

CAUTION: CAMERA AND LITE SHOULD ONLY BE OPENED, BY QUALIFIED TECHNICIANS, IN A DRY ATMOSPHERE WITH PROPER TOOLS AND WORK AREA.

## CON-3200/VTW, Typing on screen,

- A.** The Video typewriter powers up whenever the console is plugged in. The video always goes through the Video typewriter
- B.** After powering on the system the screen should go to page zero "0". Anything in page zero will be displayed as well as time and date, if it were on the screen when it was powered off.

**C.** Hit the "H" Key and the main menu will appear on the screen.

**D. Menu:**

(KEY)	(FUNCTION)
E	EDIT PAGE 0
C	CLEAR PAGE 0
T	TIME OFF
D	DATE OFF
S	SET TIME
R	RESET SYSTEMS
P	SCALE (Ruler)
X	Cross Hair (Pointer)
M	Camera Mode
I	SET INTENSITY

1) E; Go to the Page you want to edit by touching the number key. Touch the letter "E". This will bring you into the edit mode and you should see a Blinking cursor at the top left corner of the screen. Type in anywhere on the screen and when you finish hit the "ESC" key. The text will store in memory and the cursor will disappear.

2) C; Go to the page you want to clear and hit the letter C. The following will appear:

**ARE YOU SURE YOU WANT TO  
CLEAR PAGE 0 ? (Y/N)**

This will clear the page of all characters except the time and date. Select yes or no.

3) T; Hitting this key will turn the time either on or off.

4) D; Hitting this key will turn the date either on or off.

5) S; Hitting this key will allow you to set the time and date. The following will appear:

**( 12,51,5,21,99)**  
**ENTER HR,MIN,MONTH,DAY,YEAR**

Input the time and date as shown with comas between each item followed by "ENTER".

6) R; Hitting this key will clear all pages. The following will appear:

**ARE YOU SURE YOU WANT TO**  
**CLEAR ALL MEMORY ? (Y/N)**

Select yes or no. The time and date will remain on screen.

7) P; Hitting this key will cause the Video Ruler to appear on the bottom of the screen. The Video typewriter time date features will continue to operate. The active keys to use this feature are:

"0", sets scale factor. 1=1, 2=2, 3=3, etc. for every tic mark. Minus for tic marks to the left and + for each tic mark to the right. The digital display below and to the left of the scale is where on the Ruler the cursor marker is in relation to the center of the scale.

"Left Arrow" Key moves the cursor to the left on the ruler.

"Right Arrow" Key moves the cursor to the right on the ruler. The digital display moves up and down as these arrow keys are used.

"Home" Key moves the ruler tic marks wider.

"End" Key moves the ruler tic marks closer.

"Page Down" moves the center (offset) of the ruler Left.

"Page Up" moves the center (offset) of the ruler Right.

To use this feature set the scale factor for the required measurement. Move the center (offset) of the ruler to the center of the item to be measured. A reference must be used to accurately measure with the Video Ruler. If Laser dots are use then scale the ruler to those dots. Once the ruler is scaled using the "end" and "Home" Keys, use the arrow key to show the measurement.

8) X; Hit this key and a Crosshair will appear on Screen. Use the cursor keys to move the crosshair (Video Pointer) around the screen. In this mode the

Scale will disappear. The time and date will remain on Screen and all page functions will work also.

9) I; Hitting this key will bring up the following:

**SET INTENSITY LEVEL**  
**0 MIN, 15 MAX >**

Default is 3. If you enter 0 then the characters will turn black. If 14 or 15 are entered then the character will probably be a little too bright. Play around with this and set for best display.

10) M; Hit this key and the camera control menu will appear. See Multi Camera control for details about this function.

Note: When in the Crosshair or Scale mode you can go to Camera mode by hitting any key not used to operate those functions. Example: Space Bar.

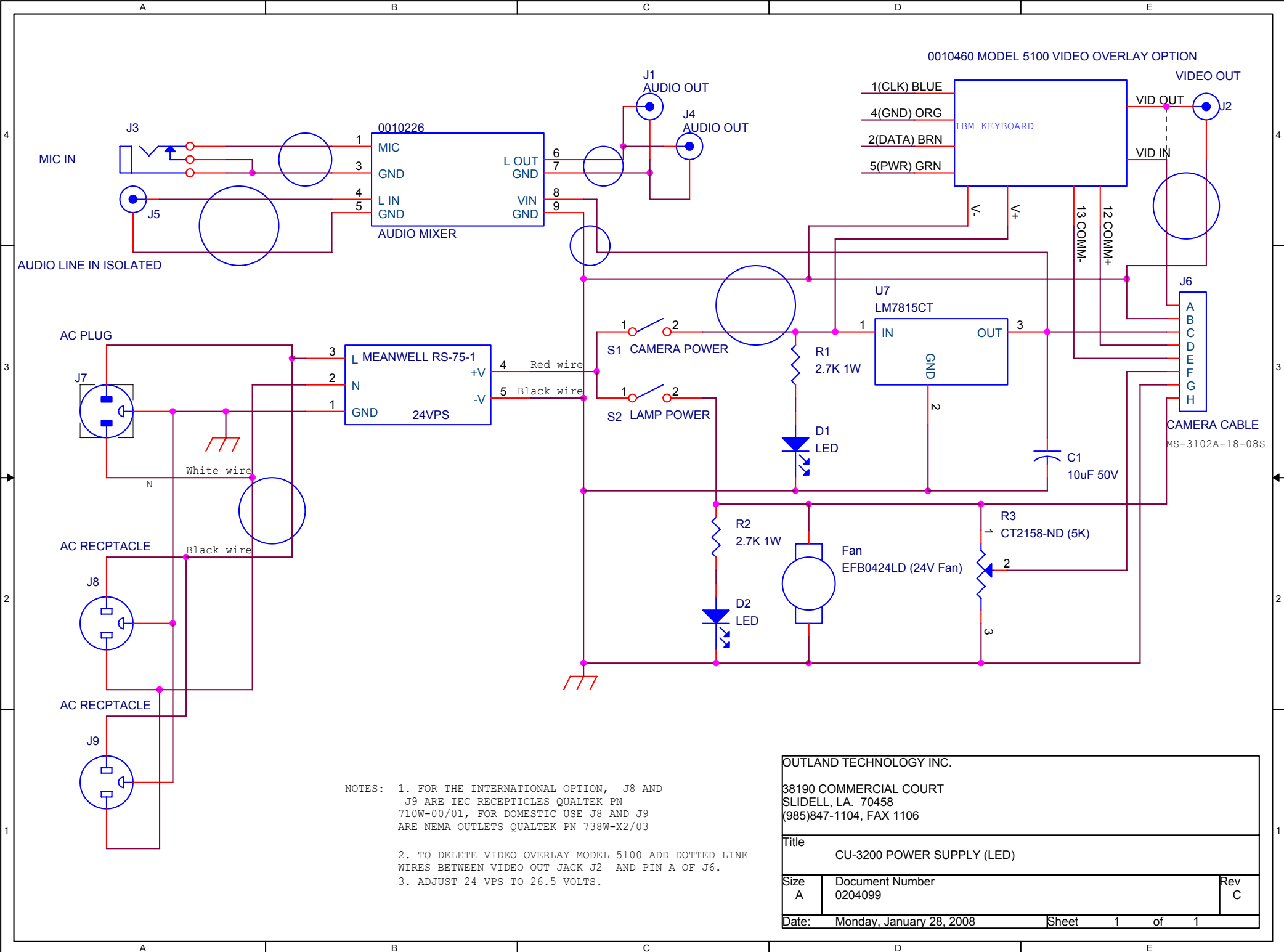
#### **Multi Camera control,**

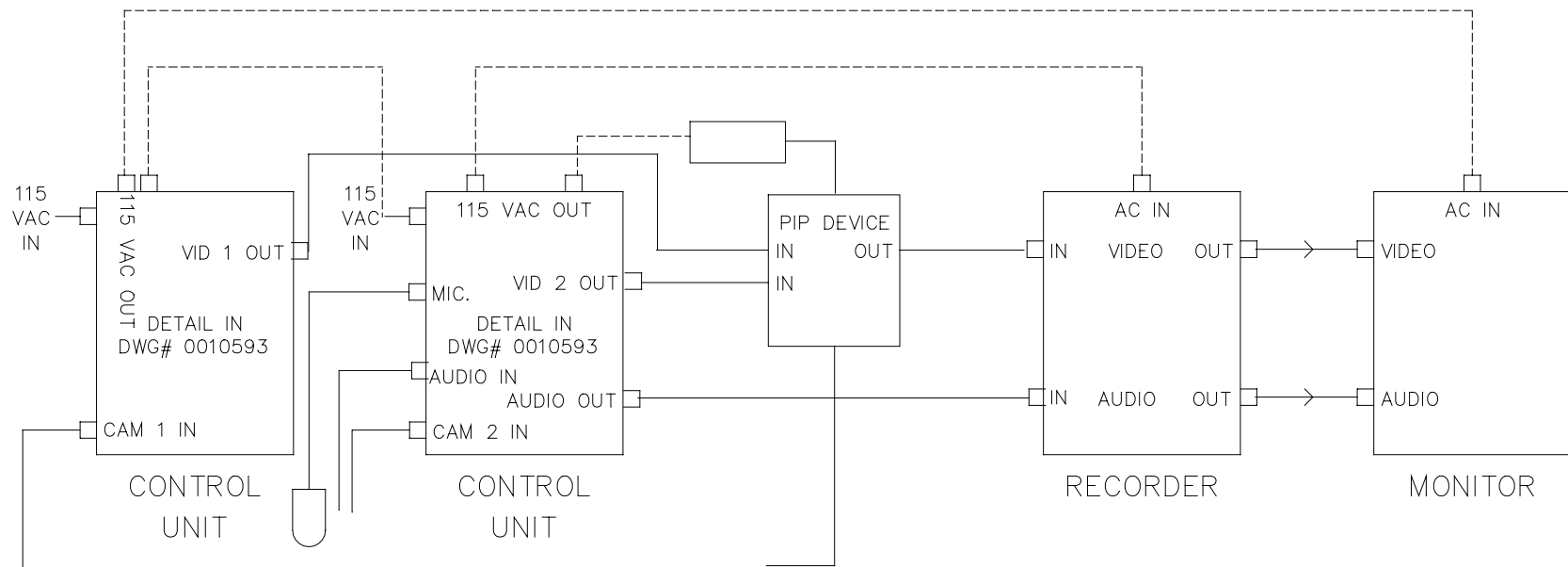
Hit the "M" key and select which camera to control. If several cameras are connected to the serial data line each camera must be set to a different address. The single camera operation is always camera 0 "zero". Call Outland for more details.

To control a camera the following keys are used:

Up/Down Arrow	Controls camera tilt up/down
Left/Right Arrow	Control camera Pan left/right
"Home"	= Zoom Telephoto
"End"	= Zoom Wide
"Page up"	= Focus Far
"Page down"	= Focus Near
"+" key	= Auto-Focus on/off

**IF AT ANY TIME THE VIDEO TYPEWRITER LOCKS UP, THE SYSTEM CAN BE RESET BY UNPLUGGING THE CONSOLE FROM THE POWER SOURCE. SIMPLY TURNING THE CAMERA, MONITOR AND VCR OFF WILL NOT WORK.**





CAMERA  
UMBILICAL  
DETAIL IN  
DWG# 0010512

SWITCHES ON FRONT PANEL  
PIP: ON/OFF AND SWAP

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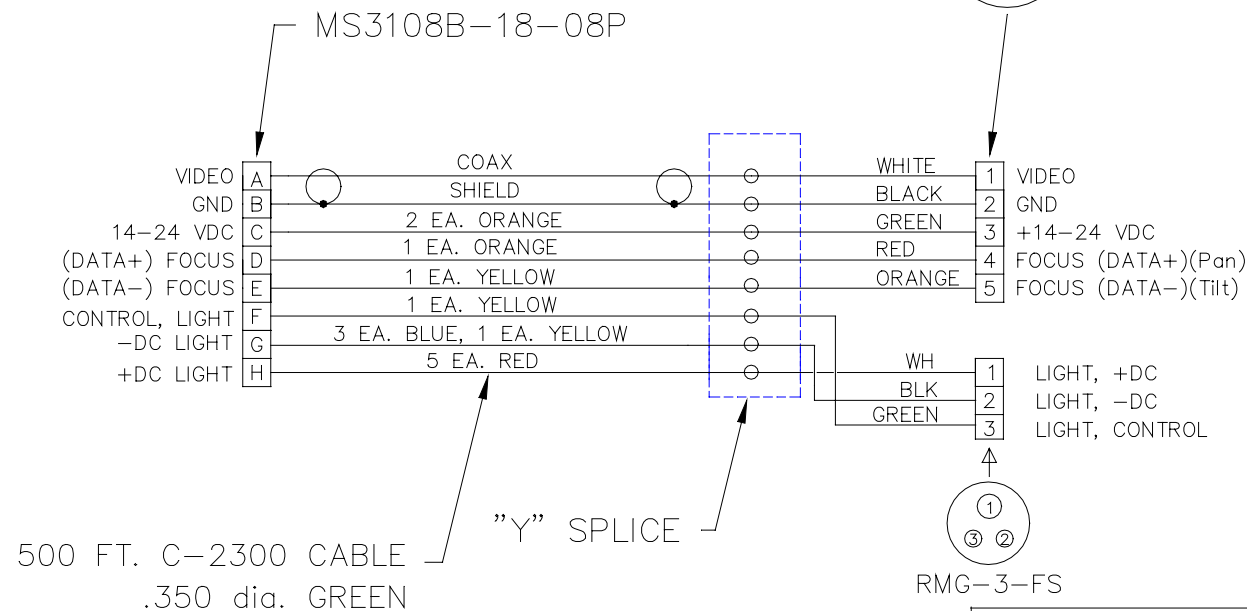
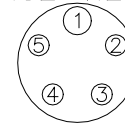
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TITLE  
CON-3200/D CONSOLE INTERCONNECTIONS

SIZE A	DOCUMENT NUMBER 0010550	REV H
DATE: APR., 2007	SHEET	

RMK-5-FS  
CAMERA CONNECTOR  
FACE VIEW



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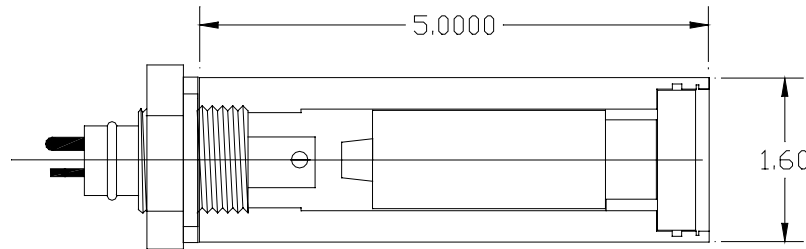
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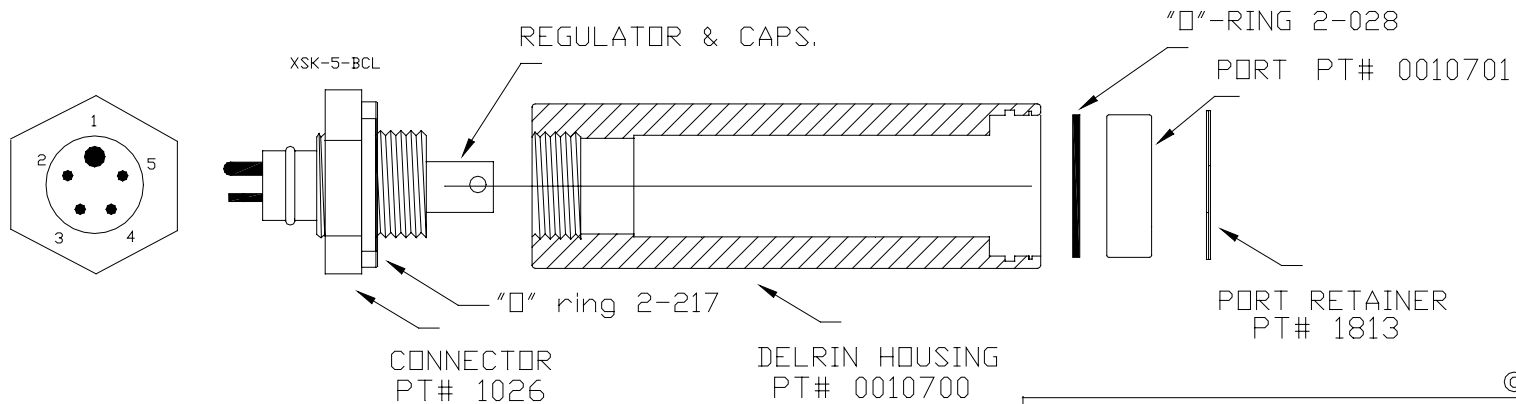
TITLE C-2303 CABLE ASSEMBLY

SIZE A	DOCUMENT NUMBER C-2303	REV
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DATE: MAR. 14, 2007	SHEET
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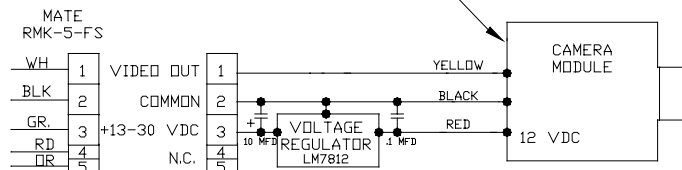


The camera comes out the front. Carefully remove the "C" clip. Carefully unscrew the connector. Remember there are wires running from the connector to the camera. Unsolder the 3 wires from the connector, push the camera and port out the front. Reverse the procedure to assemble. The camera must be purged when reassembling.



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CAMERA PT# 5407 (ntsc) 5407/p (pal)



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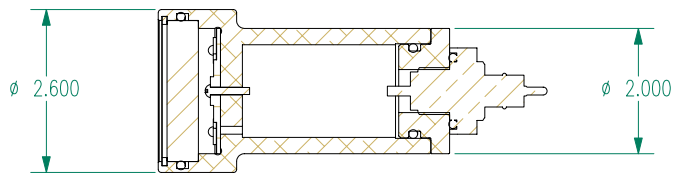
TITLE UWC-325-P ASSEMBLY

SIZE A DOCUMENT NUMBER 0010700 REV

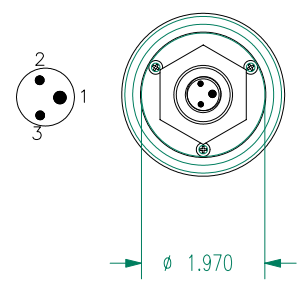
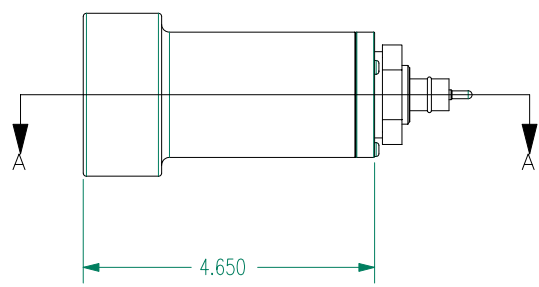
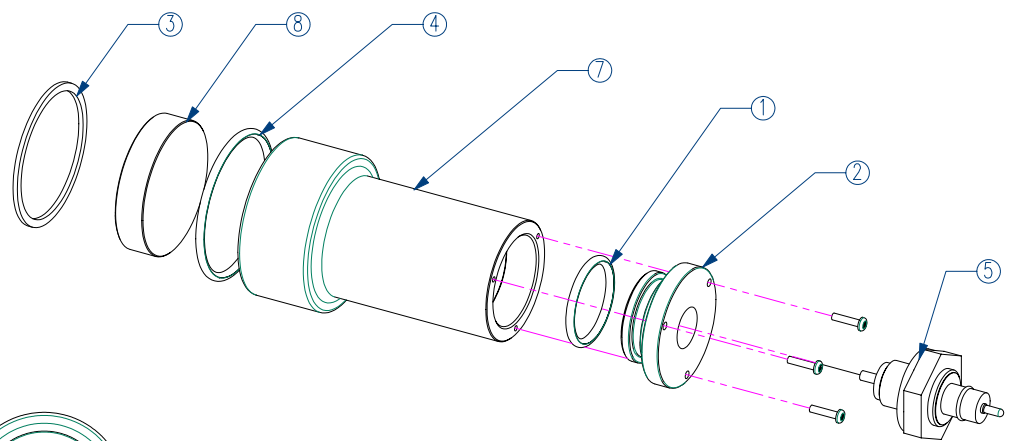
DATE: OCT., 2001 SHEET

ITEM NO.	rev 1/QT Y	PART NUMBER	DESCRIPTION	MATERIAL	Manufacturer
1	1	2-218 O-Ring	O-RING	BUNA-N	
2	1	UWL-400-02	UWL-400 END CAP	ALUMINUM 6061-T6	
3	1	92370A271	SPIRAL RETAINING RING	STAINLESS STEEL	MCMASTER-CARR
4	1	2-228 O-Ring	O-RING	BUNA-N	
5	1	XSG-BCL	MULTIPIN CONNECTOR GLASS REINFORCED CONNECTOR	BRONZE SAE 660	SEACON
6	3		PHP #4-40 UNC X 1/2	STAINLESS STEEL	
7	1	UWL-400-01	LED LIGHT HOUSING	ALUMINUM 6061-T6	
8	1	UWL-400-03	UWL-400 PORT	ACRYLIC LUCITE	
9	1	UWL-400-04			
10	1		RHP #4-40 UNC x 1/2	STAINLESS STEEL	

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



SECTION A-A



WHITE	1	+24 VDC
BLACK	2	24 VDC GROUND
GREEN	3	0-24 VDC CONTROL

MATING CONNECTOR RMG-3-FS

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL +/- 1/32  
ANGULAR: MACHINE +/- .1 DEG  
BEND +/- .5 DEG  
TWO PLACE DECIMAL +/- .01  
THREE PLACE DECIMAL +/- .005  
INTERPRET GEOMETRIC  
TOLERANCING PER: ANSI 14.5Y

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TITLE UWL-400 LIGHT ASSEMBLY

SIZE B	DOCUMENT NUMBER UWL-400-00	REV A
DATE: 2/14/07	SHEET 1 OF 1	

# OUTLAND TECHNOLOGY INC.

## UWL-400 UNDERWATER LIGHT

Operating and Maintenance Procedures

Reference: DRAWING UWL-400

### **Installation and Operation:**

- A. The UWL-400, can be mounted to your Camera, ROV, Helmet or Hand bracket by using DHM-60 OR HM-300 helmet bracket.
- B. **With Power Off**, lubricate the light mating connector with a light coating of silicon lubricant. slide the locking sleeve of the mating connector back. Align the raised dot on the connector with the large connector pin on the light connector and plug in. Securely tighten the locking sleeve.

**THERE ARE NO USER SERVICEABLE PARTS INSIDE. PLEASE SEND BACK TO THE FACTORY FOR SERVICE.**

**The only maintenance required is to flush with fresh water and dry for storage.**

### **Federal Communications Commission (FCC) Statement**

This Equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### **Warning:**

A shielded-type power cord is required in order meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.

Use only shielded cables to connect I/O devices to this equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

### **IMPORTANT SAFEGUARDS**

### **Warning:**

1. Read all of these instructions.
2. Save these instructions for later use.
3. Unplug this monitor from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use attachments not recommended by the monitor manufacturer as they may cause hazards.
5. Do not use this monitor near water. For example near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc..
6. Do not place this monitor on an unstable cart, stand, or table. The monitor may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer or sold with monitor. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
7. Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the television receiver and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the monitor on a bed, sofa, rug, or other similar surface. This monitor should never be placed near or over a radiator or heat register. This monitor should not be placed in built-in installation such as a bookcase unless proper ventilation is provided.
8. This monitor should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied in your home, consult your monitor dealer or local power company.
9. This monitor is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
10. Do not allow anything to rest on the power cord. Do not locate this monitor where the cord will be abused by persons working on it.
11. Follow all warnings and instructions marked on the monitor.

12. For added protection for this monitor, when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the monitor due to power-line surges.
13. Do not overload wall outlets and extension cords as this can result into fire or electric shock.
14. Never push objects of any kind into this monitor through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the monitor.
15. Do not attempt to service this monitor yourself since opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
16. Unplug this monitor from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - a. When the power cord or plug is damaged or frayed.
  - b. If liquid has been spilled into the monitor.
  - c. If the monitor has been exposed to rain or water.
  - d. If the monitor does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the monitor to normal operation.
  - e. If the monitor has been dropped or the cabinet has been damaged.
  - f. When the monitor exhibits a distinct change in performance- this indicated a need for service.
17. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that has the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.
18. Upon completion of any service or repairs to this monitor, ask the service technician to perform routine safety checks to determine that the monitor is in safe operating condition.

## **12" TFT COLOR MONITOR**

### **1. Installing the Monitor**

#### **Unpacking**

Open the shipping cartons and check the contents. If any items are missing or damaged, contact your dealer immediately.

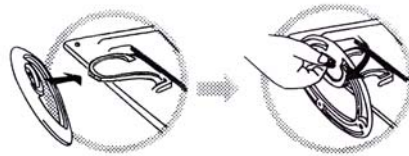
The package should include the following items:

- TFT color monitor
- User's guide
- Power cord
- Signal cable
- DC power adapter
- Audio cable

#### **Installing the Base**

Follow these steps to install the base:

1. Turn the monitor down.
2. Assembly the base to the arm with screw.
3. Tie the screw with a coin.



#### **Installing the Monitor**

This monitor is equipped with an auto sensing DC power adapter for voltage ranges 100-240VAC, 60/50Hz. Confirm the line voltage designation on the rear panel of the monitor. Follow these steps to install the monitor:

1. Before you connect the cables, made sure that the monitor and the system unit power switches are

off.

2. Plug one end of the 15pin-signal cable to the monitor and the other end to the video signal connector at the rear of the system. Tighten the two screws on the cable connector.
3. Connect the DC power cord to the DC jack.
4. Connect the power cable.

## 2. Control Functions

The monitor digital control functions are located on the front panel. They are shown in the figure below and described in the following paragraphs.



- 1.Power Switch with Indicator LED
- 2.Function Keys

## 3. Function Select

With the  $\triangle$  and  $\nabla$  knobs, you can adjust the speakers volume.

Press the MENU/SELECT knob to show the OSD menu. Than use the  $\triangle$  and  $\nabla$  knobs to select a function.

Press the AUTO/EXIT knob to close the OSD menu.

You can hold the AUTO/EXIT knob for more than 3 second to adjust the image quality automatically.

The OSD menu will close automatically after 3-10 seconds without operation and saves any changes you have made.

## 4. Function Adjustment

### 1.Signal Select

- |      |  |
|------|--|
| VGA  | - Select the image signal coming from the VGA cable.         |
| DVI  | - Select the image signal coming from the DVI cable.(option) |
| Exit | - Close the Signal Select OSD menu.                          |

### 2.Video

- |             |   |
|-------------|---|
| Brightness  | - Adjust the luminance level in the image.                                      |
| Contrast    | - Adjust the difference in luminance between light and dark areas of the image. |
| Black Level | - Adjust the black Level in the image.  |
| Exit        | - Close the Video OSD menu.   |

### 3.Audio

- |        |                                  |
|--------|----------------------------------|
| Volume | - Adjust the volume of speakers. |
|--------|----------------------------------|

- |      |                            |
|------|----------------------------|
| Exit | - Exit the Audio OSD menu. |
|------|----------------------------|

### 4.Color

- |                   |   |
|-------------------|---|
| Color Temperature |   |
| User              | - Adjust the R.G.B. gain level.             |
| 6500K             | - Select color temperature to 6500°K.       |
| 9300K             | - Select color temperature to 9300°K.       |
| Exit              | - Close the Color Temperature OSD menu.     |
| Flesh Tone        | - Adjust the flesh tone of the image.       |
| Hue               | - Adjust the shade of the image color.      |
| Saturation        | - Adjust the saturation of the image color. |

Exit - Close the Color OSD menu.

### 5. Image

Auto Tune - Adjust geometry of the image automatically.  
H. Width - Adjust the horizontal sync size of signal.  
H. Phase - Adjust the horizontal sync phase of signal.  
H. Position - Adjust the horizontal position of the image.  
V. Position - Adjust the vertical position of the image.  
Exit - Close the Image OSD menu.

**6. Language** - Sets the language of the OSD windows.

### 7. Tools

OSD Control

OSD Timer - Setting the OSD menu display time.  
OSD H. Position- Adjust the horizontal position of the OSD menu.  
OSD V. Position- Adjust the vertical position of the OSD menu.  
Exit - Close the OSD Control OSD menu.

Recall - Recall the factory default setting.  
Sharpness - Adjust the picture display more clear.  
Exit - Close the Tools OSD menu.

**8. Exit** - Close the OSD menu.

## 5. Micro-controller Features

The micro-controller automatically detects the video board installed in your system. When you turn on the monitor, the micro-controller first checks the display mode memory stored in the user setting area of the video board, and then the factory presetting area. It then adjusts to the proper display mode.

## 6. Display Modes Memory

The micro-controller has the memory capacity to store different display modes, including timing formats and display-settings.

### Factory Presetting Area

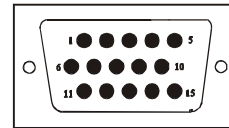
There are some preferred display modes preset in the micro-controller. These display modes are preset at the factory and include the most popular display modes currently available. The micro-controller searches for a proper display mode in this area if it fails to find a proper display mode in the user setting area.

	MODE	Resolution (Dots*lines)	Horizontal Freq.(KHz)	Vertical Freq.(Hz)	Remark
1.	VGA	640x350	31.5	70	Non-interlaced
2.	VGA	720x400	31.5	70	Non-interlaced
3.	VGA	640x480	31.5	60	Non-interlaced
4.	VESA/75	640x480	37.5	75	Non-interlaced
5.	VESA/60	800x600	37.9	60	Non-interlaced
6.	VESA/75	800x600	46.9	75	Non-interlaced

## 7. Signal Connector Pin-outs

To connect VGA, 8514A or IBM-compatible graphics adapters, use a 15 pin mini D-type male connector.

15-pin Mini D-type Male Connector					
Pin Assignment					
1	Red Video	6	Red Ground	11	Ground
2	Green Video	7	Green Ground	12	Serial Data/I/O
3	Blue Video	8	Blue Ground	13	H. Sync
4	Ground	9	No Connection	14	V. Sync
5	No Connection	10	Sync Ground	15	Serial Clock Input



## 8. Power Saving Feature

When the power saving active them the power indicator LED will be from Green Light to Amber, And power saving feature complies with these VESA power saving modes:

Mode	H. Sync.	V. Sync.	LED	Power Consumption
Normal	On	On	Green	<30W
Stand-by	Off	On	Amber	< 3W
Suspend	On	Off	Amber	< 3W
Off	Off	Off	Amber	< 3W

The monitor uses the H. Sync and V. Sync signals to determine the operation mode to enter.

The monitor power-saving feature automatically turns off H. Sync and V. Sync if there is no input from the system for a certain period of time. To use this feature, you need a green PC that is compliant with the VESA power saving feature or a software utility to detect system input such as keyboard or mouse.

### Time Settings

Time settings are adjusted from the system unit by software. To fulfill the requirements in the NUTEK specification 803299/94 the total time from indicated inactivity to Power Saving position A2 (VESA OFF) must not be set more than 70 minutes. We recommend you switch off the monitor when you do not intend to use it for awhile.

## 9. Specifications

Model	288
LCD Panel	
Size:	12"
Pixel Pitch:	0.3075mm
Brightness:	400cd/m <sup>2</sup>
Contrast Ratio:	500:1
Response Time:	35ms(typ.)
Maximum viewable size	12 inch(30.5cm)
Video Input	Analog:15-pin, D-sub connector Digital:DVI connector(option)
Display area	246mmx184mm
Power supply (Universal)	
Input voltage:	12V DC/2.5A
Consumption	30watts maximum
External controls	Power-switch,VGA,DVI(option),Brightness,Contrast, Black level,Volume,Color temperture(User,6500°K, 9300°K),Flech tone,Hue,Saturation,H-width,H-phase, H-position,V-position,OSD control,Recall,Sharpness,Exit
Horizontal frequency	30-47KHz
Vertical frequency	50-75Hz
Dimensions(with carton)	365mmx195mmx340mm (WxDxH)
Max. Resolution	800x600 (Non-Interlaced)
Power Saving	With EPA standard
Plug & Play	DDC 1/2B
Weight	N.W.:2.4Kgs G.W.:3.0Kgs
Ambient temperature	
Operation:	5°C – 35°C
Non-operating	-20°C – 60°C
Humidity	
Operating:	20%-80%
Storage:	10%-90%

\*Specifications are subject to change without notice.